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Tool Choice Recommendations
Targeting the Combination of Enterprise Architecture and Portfolio Mgt

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Executive Summary

The State of Wisconsin should investigate the capabilities of the following portfolio management vendors in some detail:

- Changepoint

- Planview

- ProSight

Changepoint and Planview are Forrester's choice as the best fit to the state's environment for purely portfolio management functionality, and ProSight is actively working on integrating with Forrester's EA tool of choice.

Forrester's EA tool of choice for the State of Wisconsin is Computas' Metis. If modeling is an EA requirement, Metis is the easy choice for the best fit. However, if modeling is not required, then Wisconsin should also evaluate Troux Technologies' offerings as they may provide one-stop-shopping for repository and governance capabilities.

It is impossible to state, without significantly more detailed requirements regarding the desired functionality for both the EA and portfolio management tool sets, whether the EA tool vendors Computas or Troux can satisfy all of the state's requirements without also including a separate portfolio management tool. Additional due diligence and analysis by the state are therefore required. Computas is currently near beta test for governance capabilities tailored to the US federal government. Thus, it may provide the state with the governance functionality required. If additional portfolio management capabilities are required, however, Computas' Metis provides excellent generic exporting capabilities via XML and is working on a robust interface with the ProSight tool.

Portfolio Management Recommendations

Types of Vendors

Services Automation Vendors

SA core functionality covers all aspects of service delivery for an IT organization. These applications integrate with CRM, ERP, and financial applications to provide visibility into every stage of the IT life cycle from project inception to production support assignment and allocation. Audience demand for visibility into project opportunities and maintenance requirements weighed against resource capacity provides a strong foundation for PPM.

The functionality within the SA offerings is the broadest, ranging from progress management to strategic analytics. Best practices consulting services are not the primary focus of SA vendors. Market demand is expanding services beyond implementation and training to business process and best practices development. SA vendors now view themselves as solution providers instead of just application vendors, and they are beginning to develop partnerships with specialized consulting firms.

SA vendors:
- Artemis International Solutions
- Business Engine
- Changepoint
- Microsoft
- Niku
- PeopleSoft
- PlanView
- Primavera

Services-Based Software Vendors

Offerings in this category are a combination of software and services. Like consulting vendors, this software is primarily focused on the most strategic analytics of portfolio management, although tactical progress reporting is part of the functionality. There is increased emphasis on methodology, although the software remains the focal point of the offering.

Hybrid vendors have established partnerships with both implementation and methodology consultants. Within the applications themselves is integrated methodologies consisting mainly of templates and workflow that address various portfolio types.

Hybrid vendors:
- Artemis
- Pacific Edge Software
- ProSight
- UMT.

Consulting Vendors

These are the original vendors in portfolio management and the most rapidly developing option. Focusing primarily on methodology, these vendors work with clients to identify and implement best practices in project selection, prioritization, organizational behavior, and strategic planning. While top-tier consulting firms offer forms of portfolio management within the framework of larger engagements, the majority of vendors are small, boutique vendors with a particular concentration. Engagements are usually quite lengthy, with the vendor placed on retainer for one to five years.

Tools in these engagements range from specially developed spreadsheets to semi -custom applications or partnerships with hybrid vendors. Licensing is either negligible or nonexistent. If the vendor has a more fully developed application, it is usually integrated with the services automation application; spreadsheet-based applications are used either as a standalone or with imported data from various systems containing the requisite information for analysis.

Consulting vendors:
- Expert Choice
- Fujitsu Consulting
- The GenSight group
- ITCentrix
- PricewaterhouseCoopers
- Robbins-Gioia.

Analysis

Because State of Wisconsin's requirements are broader than just portfolio management, Forrester recommends investigating services automation vendors. State of Wisconsin's architectural requirements are:

- Web based
- Oracle database
- Able to accommodate 100 users

Architecturally speaking, the obvious vendors in this space are:

- Changepoint – Completely web based that is supported on both Oracle and SQL databases as well as integration with Oracle Financials. Changepoint can handle light and complex project planning and tracking requirements as well as time sheet reporting, charge back functionality and performance reporting. Portfolio management is project focused with strongest emphasis on progress and value reporting and supports OLAP query capability. Very strong resource management and tracking in a highly usable interface.

- Business Engine – Primarily web based, the portfolio analysis module does require a client that is supported on both Oracle and SQL databases as well as a strong integration with Oracle Financials. The BEN can handle high level tracking every easily and contains drill downs at the portfolio and project levels. The web

client, like Changepoint's is progress and value focused, while the client handles more robust analytics. Detailed project planning and tracking requires Microsoft Project integration, which is available as an embedded solution. Resource management is competent; it actually has very strong capacity planning, however, the interface is clunky and dated.

- Niku – Web based, supports Oracle and SQL databases with generic integration capability into several ERP/financials applications. Handles both detailed planning via the Project Workbench planning tool and lightweight planning via the proposal interface. Resource management is competent with skills and capacity management and detailed time sheet functionality. Clarity, Niku's latest version is a highly configurable application that makes workflow in portfolio management easy to manage and allows both strategic and tactical portfolio planning, however the reporting requires configuration rather than OLAP query capability.

- Primavera – Web based, with a small downloadable Java client. Primavera supports Oracle and SQL databases as well Oracle Financials. The strongest in planning and tracking functionality; Primavera's application supports the widest range of planning requirements without having a separate planning application. Resource management and financial management are adequate and supports multiple levels of tracking and querying capabilities. Portfolio management is also very strong supporting OLAP querying and has a wide selection of BI queries to help users build a foundation of reports.

- Planview – Completely web based with support for Oracle and SQL databases as well as a strong integration with Oracle Financials. Planview has the most robust resource management and takes a resource centric view on project management and planning viewing everything as work that a resource has to perform. Planview places strong emphasis on budgeting, workflow and best practices management; its plan books are a combination of templates and workflow that enables a company to jumpstart best practices implementations in such areas as work initiation, resource capacity management and portfolio reporting. Planview is a highly usable application; however the interface is dated and won't be updated until its next major release.

- Kintana – Web based with support for Oracle and SQL databases. There is a generic integration with financial/ERP applications. Very strong change management practices are the underlying foundation of all planning and tracking functionality. Planning is competent, however, Microsoft Project is recommended for robust planning. Portfolio management is very pragmatic, but very IT centric, splitting work and project management into two separate portfolios. Kintana has a lot of the right foundations in place to be a full fledged application, but hasn't yet delivered all of the functionality, e.g. financials are practically non-existent outside of pragmatic tracking.

While all of these applications can provide the requisite functionality, the vendors for these tools target much larger installation bases than 100+ users. Primavera, Business Engine and Niku specifically target companies with over 2500 users. Changepoint and Planview have a wide range of clients in the 100 to 500 range and may be better suited to a smaller account.

Pricing for these applications range:

- Power user – functionality includes all levels of planning and financial tracking and portfolio management. Prices range from $1100 per user (Changepoint) to $2500 user (Planview and Kintana).
- Team member – time tracking, project homepages and other types of limited functionality - $200 per user (multiple vendors) to $500 per user (multiple vendors).
- Executive level – dashboards, light project management and reporting – approximately $500 per user.

Prices mentioned here are retail pricing without any discounts or price breaks. State of Wisconsin should note that with 100 users there will be very little to no discounting available as vendors usually start applying discounts at the 500 to 1000 user level. Additional costs to be considered are for implementation, services and training. These costs can amount to one third to one half total licensing costs.

Recommendations

- Stay with services automation vendors to cover the broadest required functionality for strategic planning requirements and execution practices. Consider an application that has all planning requirements within one suite and won't require Microsoft Project for integration.
  - o Vendors: Changepoint, Primavera, Niku and Planview

- Select a vendor with high usability to ensure faster adoption and functionality that supports both work request and project functionality. Strong timesheet functionality will support resource capacity management for portfolio management functionality.
  - o Vendors: Changepoint, Primavera Niku and Planview

- Select a vendor that has a large client base consisting of small to mid-sized installations to ensure attentive and responsive customer support.
  - o Vendors: Changepoint and Planview

- Select a vendor with strong integrated methodology for portfolio management support, and business process definitions to speed up adoption of best practices and consistency in data collection.
  - o Vendors: Changepoint and Planview.

EA Tool Recommendations

Types of Tools

Note that, while Forrester categorizes EA tools in three broad categories, there is a considerable amount of overlap of functionality. Over time, the trend will be towards even more blurring of the boundaries between tool types as vendors scramble for market share by providing "one-stop shopping" for the desired EA functionality.

Top-Down EA Tools: Modeling Tools

These tools assume business process modeling is a necessity and provide robust modeling capabilities. Some products in this category started out exclusively as business analysts' tools for business process modeling but have also added data modeling, application modeling and sometimes systems and networks modeling. Other vendors started with enterprise architecture (EA) in mind and designed in a variety of modeling functionality from the outset. This category tends to concentrate functionality on the "to-be" of Enterprise Architecture models. The main drawback of this category is that when you want to update the continuously changing of the "as-is" models (for example the details of physically deployed systems) the workload for the IT operational team to maintain accurate the information about systems changes in this category of tools can be time consuming and increase the delay and complexity of deployment processes.

Top-Down vendors:
- Casewise: Corporate Modeler
- Computas: Metis
- IDS Scheer: Aris
- Popkin: System Architect
- Mega: Mega Suite
- Proforma: ProVision
- PTech Framework
- Visible: Advantage EA Edition

Bottom-Up EA Tools: Repositories

The "repository" category can be seen more as a bottom-up approach for adding IT assets to a centralized store and providing the tools necessary manage updates, to predict the impact of changes and model dependencies. Products in this category focus their strength in the "as-is" state of Enterprise Architecture models. They can be used to store collections of business processes, applications, data information and infrastructure technology components. Some automate the repository consolidation of several other repositories of information mainly provided by asset and inventory management tools. The main drawback of this category is that they have typically been designed for IT's and

may have limited or no capabilities for modeling. They may provide the capability of storing models created in other tools, however.

Bottom-Up vendors:
- ASG Software Solutions: Rochade becubic
- Adaptive: EA Manager
- Troux Technologies: Troux
- Flashmap Systems: FlashAtlas

Transverse EA Tools: Change Management / Governance Tools

This category is for "transverse" approaches. These focus on using information in a repository to exercise some form of governance. They might be used by architects, IT strategists, IT portfolio managers or IT budget controllers. Products in this relatively new category uses links between business processes and the physical systems to apply priorities assess risk and impact and track costs. The main drawback of this category is that they do not intend to supply modeling functionality – as in the repository category, tools here will rely on other products for that functionality or provide relatively weak functionality. The focus of these products is to manage the progress from the "as-is" model and to the "to-be" model. In a sense, the portfolio management tools cited above can also be considered in this category, although they do not market themselves as relating to the EA market.

Transverse vendors:
- Agilense: EA Webmodeler
- Alfabet: Strategic IT Management Solution Framework
- Enamics: Business Technology Management Solution
- FlashLine: Registry and FlashPacks

Analysis

The EA tools market is currently hot as users refine their requirements and vendors scramble to fill needs. The potential application of EA tools is quite broad, as is the scope of most EA efforts, but it is unclear for many EA groups whether they should fulfill short-term needs of the EA team, which may be the need for a repository and/or for modeling tools, or whether they should acquire a tool with as much functionality as possible to preclude the need of acquiring another in the future. For many organizations, this lack of clarity in requirements makes acquiring a tool a risky venture regarding return on investment (ROI).

For the State of Wisconsin, the requirements clearly require at least a repository and an approach that provides governance, or at least provides a gateway to a governance tool. The expressed need to obtain a tool that can link to portfolio management of the projects that will implement the future state (to-be) architecture requires either built-in governance in the EA tool or at least an easy porting of information to a portfolio management tool.

With respect to product functionality, the obvious vendors in this space are:

- Computas' Metis – Metis is rapidly replacing Popkin's System Architect as the tool of choice for EA, particularly within the federal government. While Forrester categorizes it as a top-down modeling tool, its repository capabilities are strong. It is also in the process of working with federal government agencies to add OMB 300 capabilities and is under contract to provide a better interface to ProSight based on work with current federal agencies using that product to do portfolio management. Thus, it is adding the "transverse" management capabilities as well as improving linkage to another, stronger portfolio management tool.

- Troux Technologies' Troux – We categorize Troux as a repository tool, and it is very strong in its ability to automatically build and maintain the baseline architecture. However, Troux Technologies see themselves as an IT governance tool provider, and their components add up to robust governance capabilities for EA and other strategic initiatives. They do not intend to provide modeling capabilities, however.

- Flashline's Registry and FlashPacks – FlashLine began its vision with the management of software assets, but realized their potential for application across a broad spectrum of IT management initiatives, including EA. They have an add-on "FlashPack" to accommodate the federal EA reference models. Their focus is the repository and governance, and provide no modeling capabilities.

These three vendors provide some or all of the EA management plus portfolio management capabilities that the State of Wisconsin is seeking. Note that Metis and Flashline may be more amenable to acquisitions of a graduated nature, while Troux usually expects a "big ticket" sale. Troux and Flashline have told me that they target a sale in the $400K-$500K range, with expectations of combinations of sales and consulting services to reach the upper six-figures. Computas provides a bit more flexibility by providing a range of user types with a graduated pricing scale.

Recommendations

There are 3 basic approaches that would be reasonable:
- Select a single EA tool for all capabilities.

    - Vendors: Troux or Flashline for repository plus some portfolio management capabilities. Troux has the strongest repository as it has automatic discovery and importing functionality. Note that no modeling functionality is included. The portfolio management capabilities may not be as robust as with a true project portfolio management tool.

- Select an EA tool for the best EA functionality and explicit linkage to a strong portfolio management tool:

- o Vendors: Computas. Metis provides strong modeling and repository functionality, supports federal US EA frameworks, and is currently under contract to create a robust interface to ProSight.

- Select a tool that is strong in EA functionality and provides good generic porting of data to other products.
    - o Vendors: Computas. Metis is all-XML and porting of data is straightforward.

Forrester's recommendation for an EA tool for the State of Wisconsin is strongly in favor of Computas' Metis product. Troux is very expensive and does not provide modeling capabilities. Unless it's governance capabilities match Wisconsin's detailed portfolio management needs, then you would have to also acquire the portfolio management tool at significant additional cost. Metis is not inexpensive, but it provides very focused EA support and can provide linkage to a portfolio management tool. Forrester received this comment from the North American CEO of Computas, Bill Wright, on June 30, 2004 regarding a new Metis component, CAPBC:

> *"The interesting part is that ProSight (and I assume other commercial tools) provide generic Portfolio Mgmt, but the government needs very specific stuff around the Investment Process, E300 reporting, etc. So ProSight is launched on adding this to their product. Meanwhile, our federal customers have been on us to do the same thing. The ability to do the project analysis, planning and budgeting, and reporting all within the same knowledge base and tool has some significant end user advantages, provided it can be done in a "user friendly" way. So this is what CAPBC is all about (Capital Asset Planning and Business Case analysis). We have been developing the capability as a "solution template" add on to Metis EA environment. We have a team of agencies that are working with us, providing requirements and guidance (but no money). The first release will be turned over to the "beta" agencies in about four weeks. There will be several more incremental releases as the full capability is built out."*

So Metis may provide the complete functionality soon. They have been very active in addressing specific requirements from the federal government and as Wisconsin is interested in following the federal model, they could benefit from this activity. In addition, Metis is highly recommended as purely an EA tool that can port data to other products via XML, making integration relatively straightforward.

Overall Recommendation

The State of Wisconsin should investigate the capabilities of portfolio management tools Changepoint, Planview, and ProSight in some detail. Changepoint and Planview are Forrester's choice as the best fit to the state's environment purely for portfolio management functionality, and ProSight is actively working on integrating with Forrester's EA tool of choice.

Forrester's EA tool of choice is Computas' Metis. Wisconsin should also evaluate Troux Technologies' offerings as they may provide one-stop-shopping for repository and governance capabilities. If modeling is an EA requirement, however, Metis is the easy choice for the best fit.

It is impossible to state, without significantly more detailed requirements regarding the desired functionality for both the EA and portfolio management tool sets, whether the EA tool vendors Computas or Troux can satisfy all of the state's requirements without including a separate portfolio management tool. Additional due diligence and analysis by the state are therefore required.

Appendix A: About The Analysts

Gene Leganza
Vice President
Gene is an analyst in Forrester's IT Management & Services research group, focusing on topics such as enterprise architecture efforts, organizational design issues, and IT planning and strategy.

One of Gene's primary research goals is to help clients define, maintain, and govern enterprise architectures to provide a sound, robust, flexible, and cost-effective computing environment. Gene focuses on process-oriented issues surrounding the definition and governance of enterprise architecture rather than the technical and structural aspects of specific architecture domains.

Gene has 25 years of IT experience, including application development; system programming; performance management; capacity planning; product strategy; IT management; and the development, deployment, and governance of enterprise architecture. Gene came to Forrester through its acquisition of Giga Information Group. Prior to joining Giga, he was director of capacity planning and infrastructure architecture at John Hancock in Boston. Previously, he held senior IT positions at First Data Corporation and Fidelity Investments, as well as development and marketing management positions at BGS Systems (now BMC Software), Bachman Information Systems (now Sterling Software), and Programart Corporation.

Gene has published papers on various topics and has spoken at local and national Computer Measurement Group, DB2 Users' Group, and Sybase Users' Group conferences.

Margo Visitacion
Principal Analyst
Margo is a principal analyst in Forrester's IT Management & Services research group, covering project management tools and methods as well as quality assurance methodology.

Margo has 12 years of experience in IT organizations, developing and implementing QA and project management practices. She came to Forrester through its acquisition of Giga Information Group. Before joining Giga, Margo was assistant vice president of the project office at BHC Securities, where she was responsible for creating project office and quality assurance departments, as well as managing the project implementation and testing of the company's client/server and Internet trading systems.

Prior to working for BHC, Margo was manager of quality assurance for ADP-BISG, where she was responsible for developing a new testing methodology for ADP's flagship front-office product, Power Partner, as well as other leading-edge brokerage front-end systems. She also led a testing team that was instrumental in the project rollout of almost 25,000 client desktops. Additionally while at ADP, she was a senior client support analyst, managing the technical relationship of many of the company's regional retail firms.

Margo attended Rutgers University and has received various certificates in QA and PM practices.